East Teshekpuk No. 1 Well Plugging – 2008

Operations Summary

BLM initiated well plugging operations in the East Teshekpuk well area on March 28, 2008 under contract to Marsh Creek Environmental Services. The following legacy well was plugged to surface before the cessation of operations on April 6, 2008:

East Teshekpuk Well No. 1

The well was drilled in 1976 on a small peninsula on the southeast side of Teshekpuk Lake as part of the USGS exploration efforts in the National Petroleum Reserve - Alaska. Due to its close proximity to the lake shore and prevailing winds, significant shoreline erosion had advanced into the well location requiring the BLM to complete plugging and abandonment of the wellbore and well site. The USGS had been actively using the well for permafrost temperature measurements prior to 2008. Diesel fuel inside the wellbore had been used as a non-freezing medium to aid in conducting the temperature measurements. During well plugging operations, approximately 9,240 gallons of diesel fuel was displaced with salt-saturated sea water prior to completing final plugging operations. Arctic Pac (diesel mud) was removed from the annulus and displaced with cement prior to setting the final surface cement plug.

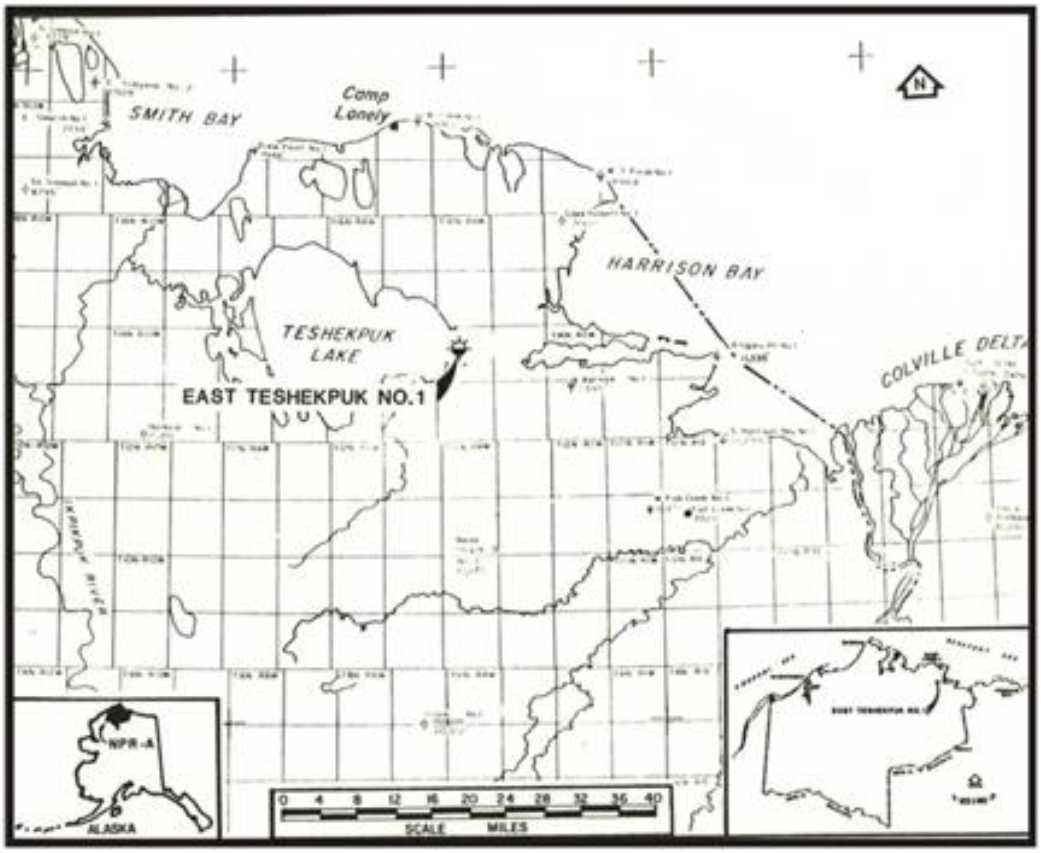

Figure 1: Map of East Teshekpuk No. 1 Well location

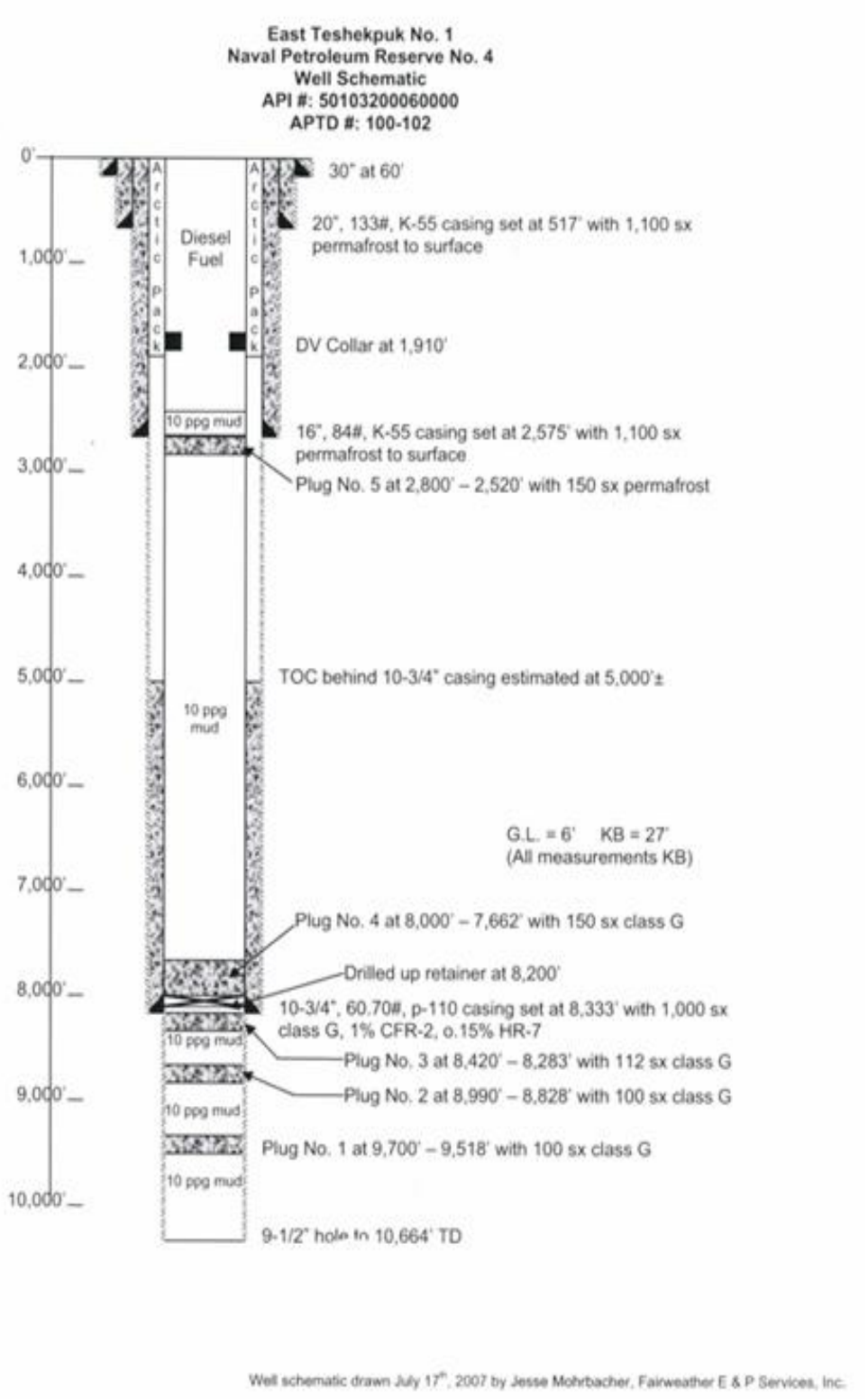

Figure 2: East Teshekpuk No. 1 Well – July 2007 Status

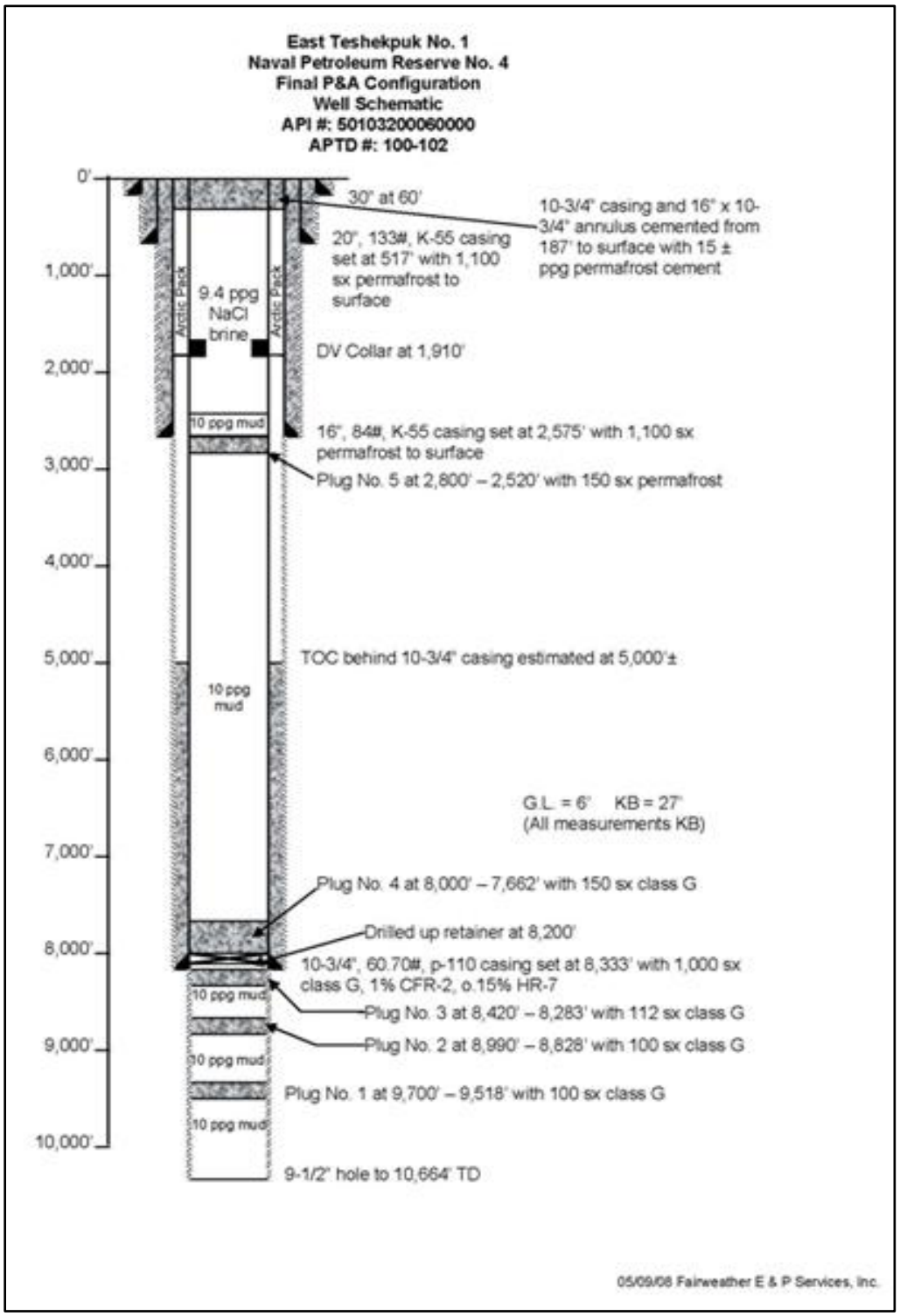

Figure 3: East Teshekpuk No. 1 Well – FINAL P&A Configuration

Figure 4: East Teshekpuk No. 1 wellhead during the summer of 2006

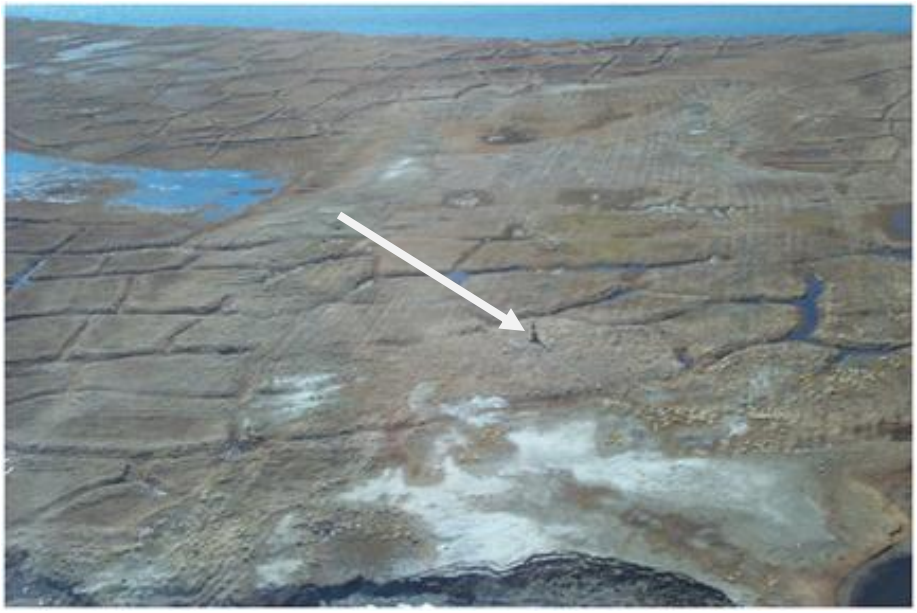

Figure 5: East Teshekpuk well location – July 2005

Figure 6: Surface debris at Teshekpuk Lake shore near well location – Summer 2006

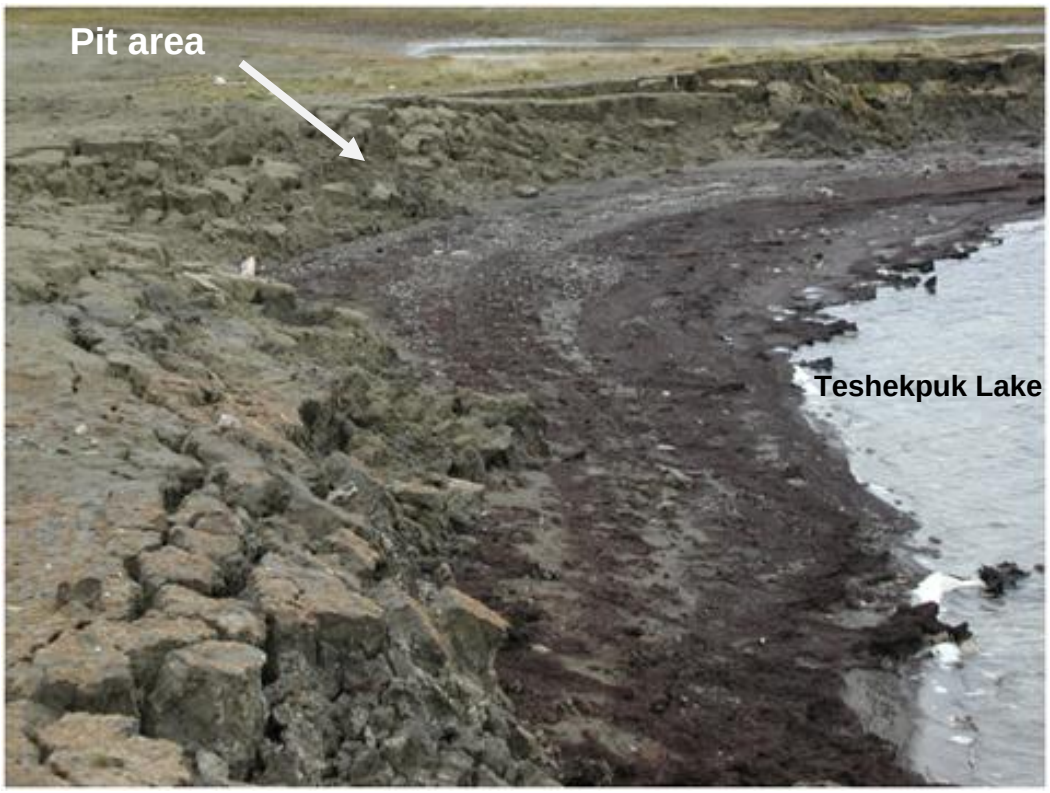

Figure 7: Teshekpuk Lake shore erosion into well site and pit area – Summer 2006

Figure 8: Excavation of wellhead casing prior to cut-off

Figure 9: Cutting off of wellhead and casing below Lake mud depth

Figure 10: Final cut off of casing

Figure 11: Final top off of annulus and surface plug with cement

Figure 12: Final installation of steel surface well identification plate

Figure 13: Removal of contaminated reserve pit material

Figure 14: Removal of surface debris from along Teshekpuk lake shore, near well site